

REPLACEMENT CLAIMS

Sub E27 8. (three times amended) A method of fabricating a semiconductor device

comprising:

D1 depositing an oxygen-deficient dielectric film having a dielectric constant of at least about 25 over an underlying layer;

subjecting the dielectric film to a wet oxidation with steam provided from a mixture of hydrogen and oxygen gases in a rapid thermal process chamber at a temperature of at least about 450 °C and for a duration which increases the oxygen content of the dielectric film; and

subjecting the dielectric film to a heat treatment in an ambient comprising a stabilizing gas selected from the group consisting of N₂, O₂, O₃, NO, and N₂O.